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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,805	06/21/2001	James William Casper	OC527	5082

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PPG INDUSTRIES INC
INTELLECTUAL PROPERTY DEPT
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EXAMINER

BLANTON, REBECCA A

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 10/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,805

Applicant(s)

CASPER, JAMES WILLIAM

Examiner

Rebecca A. Blanton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-19 and 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant claims in the independent claims 1 and 20 that the paint pack contains no crosslinkers. However, in dependent claims 16-19 and 21-24, which depend from independent claims 1 and 20, the applicant claims the type of crosslinkers in the paint pack. The claims are indefinite because the dependent claims contradict the independent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5, 8 -14, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Palasz (U.S. 5,654,360).

Regarding claims 1 and 20, Palasz discloses a method for forming a water-based coating composition paint pack, wherein the pack comprises a solution of a polymer which hydrophilic groups and a silicon functional group in an organic solvent and a second solution of a polymer in dispersion in an aqueous liquid (abstract). Palasz

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additionally teaches that the aqueous polymer dispersion comprises pigments, wherein the polymer acts as a dispersing agent for the pigments (column 7 lines 39-43).

Regarding claim 2, the reference teaches that the polymers contain hydroxyl functional groups (column 4 lines 31-33).

Referring to claim 5, Palasz teaches that the hydrophilic groups are preferably carboxylic acid groups (column 5 lines 32-40).

Regarding claims 8-10, the reference teaches that the polymer may be a vinyl addition polymer, an epoxy polymer, or polyester (column 4 lines 10-11 and column 5 lines 5-7).

Referring to claims 11-12, the reference teaches that the theoretical glass transition temperature is from -20° to 80° C (column 4 lines 46-50).

Referring to claims 13-14, Palasz disclose a paint pack wherein the polymer has a number average molecular weight, as measure by gel permeation chromatography, of 500 to 300,000 (column 4 lines 4-9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palasz (U.S. 5,654,360) in view of Miwa et al. (U.S. 5,391,630).

Palasz discloses a process for forming a coating composition pack with one solution of a polymer in an organic solvent and a second solution of a polymer dispersed in an aqueous liquid with a pigment, as described above. Additionally, the reference teaches that the composition can be used for coating automobiles (column 7 lines 51-54). The polymers disclosed by Palasz are silicone-containing polymers (column 1). Palasz teach that the polymers comprises hydroxyl functional groups, however, the reference does not disclose the hydroxyl value of the polymer. Miwa et al. discloses a coating composition with a hydroxyl-containing polymer, wherein the polymer may be an acrylic resin or polyester resin (abstract and column 1 lines 17-18). Miwa et al. teach that the composition is often used to paint automobiles (column 1 line 17). Miwa et al. also teach that the resins are silicone-containing resin (column 2 lines 49-54). Miwa et al. teach that the hydroxyl values should be between 40 and 200 (column 2 lines 63-67). The reference teaches that a hydroxyl value of less than 40 will fall short of the crosslinking degree, which will not allow the polymers to crosslink and form a coating on the surface of the substrate, however, if the hydroxyl value is greater than 200, the flexibility of the film is reduced and the film will often crack (column 2 lines 64-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose a polymer with a hydroxyl value between 40 and 200 for the silicon-containing polymer coating composition taught by Palasz that is used to coat automobiles, in view of the teachings of Miwa et al. that the hydroxyl values of a silicone

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containing resin that is used to coat an automobile should be between 40 and 200 so as to ensure that the coating exhibits desirable properties.

Claims 6-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palasz (U.S. 5,654,360).

Palasz discloses a process for forming a coating composition pack with one solution of a polymer in an organic solvent and a second solution of a polymer dispersed in an aqueous liquid with a pigment, as described above. While Palasz teaches that the polymers contain carboxylic acid functionality, the reference does not disclose the acid value of the polymer. However, the acid value of the polymer is a known result effective variable. If the acid value of the polymer is too great, the flexibility of the coating will be reduced, which leads to cracking of the film. However, if the acid value is too low, the polymer coating will not properly crosslink, and will not provide a suitable coating on the substrate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the acid value of the polymer with carboxylic acid functional groups that is in a two-pack coating composition, as disclosed by Palasz, through routine experimentation in the absence of unexpected results, to ensure that the film is formed on the substrate surface without reducing the flexibility of the coating film, which results in cracking.

Response to Arguments

Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca A. Blanton whose telephone number is 703-605-4295. The examiner can normally be reached on M - F (7:30am - 3:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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October 25, 2002



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SUPERVISORY PATENT EXAMINER
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